

Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A method for reorganizing data, comprising:

reading each record of a source file;

writing each record to a destination file;

creating a log file, the contents of the log file being limited to a subset of all log records containing selected log records, each log record associated with a change to be made to the destination file;

reading each log record of the log file;

processing each record of the log file to effect the associated change to the destination file; and

replacing the source file with the destination file.

Claim 2 (original): A method according to claim 1 wherein the source file is an index file.

Claim 3 (original): A method according to claim 1 wherein the source file is a data file.

Claim 4 (original): A method according to claim 1 wherein the step of creating a log file is performed in accordance with instructions of a DBMS log routine.

Claim 5 (original): A method according to claim 4 wherein the log file contains a subset of all records processed by the DBMS log routine.

Claim 6 (original): A method according to claim 4 wherein the log file records are selected based on a program call established by a reorganization utility.

Claim 7 (original): A method according to claim 6 wherein the program call is removed prior to termination of the reorganization utility.

Claim 8 (original): A method for logging changes by a database management system, comprising:

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identifying a change to be logged;
creating a log record based on the change;
determining whether the change affects a reorganization process;
storing the log record in a first log file recording selected changes if the change affects the reorganization process; and
storing the log record in a second log file recording all changes.

Claim 9 (original): A method according to claim 8 wherein the first log file resides in virtual storage.

Claim 10 (original): A method according to claim 8 wherein the first log file resides in dataspace.

Claim 11 (original): A method according to claim 8 wherein the first log file resides in hiperspace.

Claim 12 (original): A method according to claim 8 wherein the first log file resides in DASD.

Claim 13 (currently amended): An apparatus for reorganizing data, comprising:

means for reading each record of a source file;
means for writing each record to a destination file;
means for creating a log file, the contents of the log file being limited to a subset of all log records containing selected log records, each log record associated with a change to be made to the destination file;
means for reading each log record of the log file;
means for processing each record of the log file to effect the associated change to the destination file; and
means for replacing the source file with the destination file.

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Claim 14 (original): An apparatus according to claim 13 wherein the source file is an index file.

Claim 15 (original): An apparatus according to claim 13 wherein the source file is a data file.

Claim 16 (original): An apparatus according to claim 13 wherein the log file is created in accordance with instructions of a DBMS log routine.

Claim 17 (original): An apparatus according to claim 16 wherein the log file contains a subset of all records processed by the DBMS log routine.

Claim 18 (original): An apparatus according to claim 16 wherein the log file records are selected based on a program call established by a reorganization utility.

Claim 19 (original): An apparatus according to claim 18 wherein the program call is removed prior to termination of the reorganization utility.

Claim 20 (currently amended): An apparatus for reorganizing data, comprising:
a processor;

 a memory connected to said processor storing a program to control the operation of said processor;

 the processor operative with the program in the memory to:

 read each record of a source file;

 write each record to a destination file;

create a log file, the contents of the log file being limited to a subset of all log records containing selected log records, each log record associated with a change to be made to the destination file;

 read each log record of the log file;

 process each record of the log file to effect the associated change to the destination file; and

 replace the source file with the destination file.

Claim 21 (original): An apparatus according to claim 20 wherein the source file is an index file.

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Claim 22 (original): An apparatus according to claim 20 wherein the source file is an data file.

Claim 23 (original): An apparatus according to claim 20 wherein the processor is further operative with the program in the memory to create the log file in accordance with instructions of a DBMS log routine.

Claim 24 (original): An apparatus according to claim 23 wherein the log file contains a subset of all records processed by the DBMS log routine.

Claim 25 (original): An apparatus according to claim 20 wherein the processor is further operative with the program in the memory to select the log file records based on a program call established by a reorganization utility.

Claim 26 (original): An apparatus according to claim 23 wherein the processor is further operative with the program in the memory to remove the program call prior to termination of the reorganization utility.

Claim 27 (currently amended): A computer-readable storage medium encoded with processing instructions for implementing a method for reorganizing data, the processing instructions for directing a computer to perform the steps of:

reading each record of a source file;

writing each record to a destination file;

creating a log file, the contents of the log file being limited to a subset of all log records containing selected log records, each log record associated with a change to be made to the destination file;

reading each log record of the log file;

processing each record of the log file to effect the associated change to the destination file; and

replacing the source file with the destination file.

Claim 28 (newly added): A method for reorganizing data, comprising:

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creating an empty destination file;
establishing a program call to copy selected log records during reorganization;
reading each record of a source file;
writing each record to the destination file, thereby creating a reorganized copy of the source file;
employing the established program call to create a log file, the contents of the log file being limited to a subset of all log records, each log record associated with a change to be made to the destination file;
removing the established program call;
reading each log record of the log file;
processing each record of the log file to effect the associated change to the destination file; and
replacing the source file with the destination file.

Claim 29 (newly added): A method according to claim 28 wherein the source file is an index file.

Claim 30 (newly added): A method according to claim 28 wherein the source file is a data file.

Claim 31 (newly added): An apparatus for reorganizing data, comprising:

means for creating an empty destination file;
means for establishing a program call to copy selected log records during reorganization;
means for reading each record of a source file;
means for writing each record to the destination file, thereby creating a reorganized copy of the source file;
means for employing the established program call to create a log file, the contents of the log file being limited to a subset of all log records, each log record associated with a change to be made to the destination file;

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means for removing the established program call;
means for reading each log record of the log file;
means for processing each record of the log file to effect the associated change to the destination file; and
means for replacing the source file with the destination file.

Claim 32 (newly added): An apparatus according to claim 31 wherein the source file is an index file.

Claim 33 (newly added): An apparatus according to claim 31 wherein the source file is a data file.

Claim 34 (newly added): An apparatus for reorganizing data, comprising:
a processor;
a memory connected to said processor storing a program to control the operation of said processor;
the processor operative with the program in the memory to:
create an empty destination file;
establish a program call to copy selected log records during reorganization;
read each record of a source file;
write each record to the destination file, thereby creating a reorganized copy of the source file;
employ the established program call to create a log file, the contents of the log file being limited to a subset of all log records, each log record associated with a change to be made to the destination file;
remove the established program call;
read each log record of the log file;
process each record of the log file to effect the associated change to the destination file; and
replace the source file with the destination file.

Claim 35 (newly added): An apparatus according to claim 34 wherein the source file is an index file.

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Claim 36 (newly added): An apparatus according to claim 34 wherein the source file is an data file.

Claim 37 (newly added): A computer-readable storage medium encoded with processing instructions for implementing a method for reorganizing data, the processing instructions for directing a computer to perform the steps of:

- creating an empty destination file;
- establishing a program call to copy selected log records during reorganization;
- reading each record of a source file;
- writing each record to the destination file, thereby creating a reorganized copy of the source file;
- employing the established program call to create a log file, the contents of the log file being limited to a subset of all log records, each log record associated with a change to be made to the destination file;
- removing the established program call;
- reading each log record of the log file;
- processing each record of the log file to effect the associated change to the destination file; and
- replacing the source file with the destination file.
